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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William DOVIAK et al. Office of Petitions
Appl. No.: 08/932,532
Filed: September 17, 1997 Group Art Unit: 2681
Examiner: J. GELIN
For: APPARATUS AND METHOD FOR INTELLIGENT ROUTING
OF DATA BETWEEN A REMOTE DEVICE AND A HOST
SYSTEM

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents and Trademarks
Washington, D.C. 20231

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OFFICE OF PETITIONS

Sir:

In accordance with the duty of disclosure under 37 C.F.R. 1.56, 1.97-1.98, applicants bring to the Examiner's attention the documents identified below.

The following documents were cited in a PCT International Search Report, issued February 14, 2002, for counterpart PCT Application No. PCT/US01/26001, which was filed on August 24, 2001:

U.S. Patent No. 5,325,362 to AZIZ, which issued June 28, 1994, was cited as a Y-category document (document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art) with

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respect to claims 1-23. The relevant passage was indicated to be Figs 8-12;

U.S. Statutory Invention Registration No. H1641 to SHARMAN, which published April 1, 1997, was cited as a Y-category document with respect to claims 1-23. The relevant passage was indicated to be Figs 1-7;

U.S. Patent No. 5,890,054 to LOGSDON et al., which issued March 30, 1999, was cited as a Y-category document with respect to claims 1-23. The relevant passage was indicated to be Fig. 3A; and

U.S. Patent No. 5,987,011 to TOH, which issued November 16, 1999, was cited as a Y-category document with respect to claims 1-23. The relevant passage was indicated to be Figs 4 and 12.

Additionally, applicants further bring to the Examiner's attention the documents identified below. The documents were obtained in response to reviewing the SHARMAN reference, which is assigned to GTE Mobile Communications Service Corporation, and which describes a now defunct cellular switched CDPD (CS-CDPD) system. Upon reviewing the document, the assignee of the present invention realized that it had replaced two CS-CDPD systems with its own system. More specifically, Vectren Corporation (formerly Indiana Gas, Inc.) and Florida Power had previously used the CS-CDPD system, but currently use the present assignee's system. Therefore, at some point, the assignee may have been at least exposed to the capabilities of the GTE system.

Applicants have attempted to contact people working for the Assignee and third parties who might know how the CS-CDPD system operated. However, applicants were unsuccessful in obtaining any material information, primarily because knowledgeable people could not be located. The only significant information obtained from these efforts was a referral to the Sierra Wireless, Inc. website. The relevant information from the Sierra Wireless website is cited below.

Based on the references listed below, applicants attempted to deductively piece together how the CS-CDPD system does and does not operate. The following discussion, therefore, refers to passages which taken together might indicate what the system does and does not do. The following articles represent the best sum of information as to what the applicants are presently able to reconstruct.

All of the documents listed below are assumed to generally refer to the same circuit-switched cellular digital packet data (CS-CDPD) system that was developed in 1995 by GTE and the CDPD Forum (now called the Wireless Data Forum). If this is not the case, the information may not be entirely accurate. CS-CDPD, publicly released in February 1997, permits the use of the CDPD protocol over a cellular circuit-switched connection. See "CS-CDPD", http://www.sierrawireless.com/alliance/nettech_cscdpd.asp. The GTE system is apparently compatible with Sierra Wireless' MP 215 modem. See "GTE, Sierra Wireless Bring Circuit-Switched CDPD to Indiana Law Enforcement," Wireless Data News, Vol. 6,

Issue 15 (July 1998). Using CS-CDPD, the GTE system allows packet data subscribers who travel outside of pure CDPD range to continue operating CDPD applications wherever cellular voice service is available.

Circuitry within the wireless device senses when the field strength of CDPD signals are fading and when transition to circuit-switched service is necessary. A modem that supports the CS-CDPD system is programmed to detect a CDPD network first, and if one is not found, the modem will seek a circuit switched cellular connection, establish a dial-up session and connect to a modem pool where the packets will be linked to the CDPD backbone. See Schwartz, J., "GTE Mobilnet Retrofits CDPD Network to Connect with Analog Cellular," Communications Week, No. 606, page 53 (April 1996). There appear to be transitions between CDPD and circuit switched airlinks which are nearly imperceptible to the end user. The transition between networks appears not to have been immediate and may have take two to three seconds. See Sukow, R., "GTE Wireless's CS-CDPD Technology Will Be Commercially Available Feb. 3," Communications Today (January 1997). Further, CS-CDPD does not appear to have switched between networks during a transmission, rather it completed a transmission and then disconnected the dial-up connection. See "CS-CDPD," http://www.sierrawireless.com/alliance/nettech_cscdpd.asp; "Sierra Wireless Adds CS-CDPD, Teams with GTE and AETHER Technologies to Provide a 'Never out of Coverage' Transportation Solution," Business Wire (January 1997); and Morris, J., "Guide to Wireless

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Data Networks," Sierra Wireless, (July 1997).

Also, see "MP215: The First Ever CS-CDPD 3W Modem. (End-to-end wireless IP anywhere - Automatically)," Tri-M Systems, Coquitlam, B.C., Canada, for a diagram and an explanation of how CS-CDPD operates.

The following documents relate to the CS-CDPD system:

Thyfault, M., "Wireless has a Support Act - Carriers at Comdex Tout Applications for Cellular Digital Packet Data," Information Week (1993). Available from DIALOG Corporation;

Wexler, J., "CDPD Spec Could Embrace Analog Nets," Network World Vol. 12, No. 13 (March 1995): pp. 17, 24. Available from DIALOG Corporation;

"Hybrid Cellular Data Technology in Works," Telecommunications Alert Vol. 12, No. 222 (November 1995). Available from Lexis;

Schwartz, J., "GTE Mobilnet Retrofits CDPD Network to Connect with Analog Cellular," Communications Week (1996): p. 53. Available from DIALOG Corporation;

"GTE Closer to Installing Circuit Switched-CDPD Gateway; Plans to Offer National 'CDPD Access' via '800' Number Service," Wireless Data News, Vol. 4, Issue 6 (March 1996). Available from DIALOG Corporation;

Washburn, B., "CDPD: The Tower of Power," America's Network (August 1996): p. 42. Available from Lexis;

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Steward, S., "A Circuitous Route to CDPD Expansion; Cellular Digital Packet Data," Cellular Business Vol 13, No. 9 (September 1996): p. 102. Available from Lexis;

"Sierra Wireless Adds CS-CDPD," Business Wire (January 1997), Available from World Wide Web: (<http://www.sierrawireless.com/news/cdpd.html>), downloaded March 12, 2002;

Sukow, R., "GTE Wireless's CS-CDPD Technology Will Be Commercially Available Feb. 3," Communications Today (January 1997). Available from DIALOG Corporation;

"Wireless: GTE, Hughes Network Systems and PCSI Join to Provide Nationwide Wireless Access for 'Super Phones,' Other Intelligent Devices," EDGE, on & about AT&T (February 1997). Available from DIALOG Corporation;

Pate, K., "CS-CDPD May Solve Wireless Data User Problem with Coverage (Circuit Switched-Cellular Digital Packet Data Is Launched to Allow Data Users to Access CDPD Functionality Across an Entire Network)," RCR Radio Communications Report Vol. 16, No. 5 (February 1997): p. 2. Available from DIALOG Corporation;

"GTE Wireless Launches Long-Anticipated CS-CDPD Service; Other Cellular Carriers Continue to Reject Hybrid Approach," Wireless Data News, Vol. 5, Issue 3 (February 1997). Available from DIALOG Corporation;

"Industry News: CS-CDPD Goes Nationwide," Advanced Transportation Industry Review. (May 1997). Available from DIALOG Corporation;

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“Dueling Realities: Cellular Data Developers Struggle to Build Business, Yet Foresee Future Consumer, Ad-Supported Market,” Wireless Data News, Vol. 5, Issue 11 (May 1997). Available from DIALOG Corporation;

“GTE Wireless Offers National Access for ‘Super Phones’,” Cellular Business (June 1997.) Available from DIALOG Corporation;

Morris, J., “Guide to Wireless Data Networks,” Sierra Wireless, (July 1997), available on the World Wide Web: (<http://www.ofb.net/~heath/ardis/2110152.pdf>);

“GTE, Sierra Announce CDPD Solution (GTE Wireless and Sierra Wireless Introduced a Circuit Switched Cellular Digital Packet Data Solution),” RCR Radio Communications Report (June 1998): p. 8. Available from DIALOG Corporation;

“GTE, Sierra Wireless Bring Circuit-Switched CDPD to Indiana Law Enforcement,” Wireless Data News, Vol. 6, Issue 15 (July 1998). Available from DIALOG Corporation;

“Sierra Modem Adds Coverage (Indiana State Police Department is the First in US to Use New Circuit-Switched CDPD Modem from Sierra Wireless,” Wireless Week (July 1998);p.14. Available from DIALOG Corporation;

“GTE and Sierra Wireless Extend Reach of Cellular Digital Packet Data Networks Nationwide,” Available from World Wide Web: (<http://www.sierrawireless.com/news/gte&swi.html>), downloaded March 12, 2002;

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“MP215: The First Ever CS-CDPD 3W Modem. (End-to-end wireless IP anywhere - Automatically),” Tri-M Systems, Coquitlam, B.C., Canada;

“CS-CDPD,” Available from World Wide Web:
(http://www.sierrawireless.com/alliance/nettech_cscdpd.asp), downloaded March 12, 2002;
and

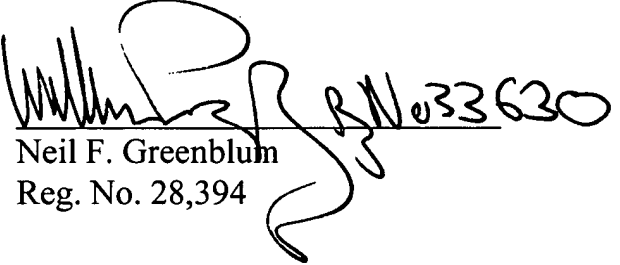
“Circuit Switch Cellular Digital Packet Data,” Available from World Wide Web:
(<http://www.leapforum.org/published/internetnetworkMobility/split/node91.html>), downloaded
March 18, 2002.

Applicants respectfully request that the Examiner consider and cite all of the above materials. Copies of the above-noted documents are enclosed and have been listed on a PTO-1449 Form which is also enclosed. Accordingly, the Examiner is requested to initial the appropriate spaces on the PTO-1449 Form and to return a copy of the Form to the applicants with the next official communication in the present application to confirm consideration of these documents.

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Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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March 18, 2002
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